UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,579	02/09/2001	Jeff B. Erwin	06576-105019 (MS #150875.	1605

20786 7590 02/16/2005	EXAMINER	
KING & SPALDING LLP	PHAN, MAN U	
191 PEACHTREE STREET, N.E.	ART UNIT	PAPER NUMBER
ATLANTA, GA 30303-1763	2665	

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/780,579	ERWIN, JEFF B.
	Examiner	Art Unit
	Man Phan	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 October 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Amendment and Argument

1.   This communication is in response to applicant's 10/07/2004 Amendment in the

application of Erwin for a "method and apparatus for network analysis, such as analyzing and

correlating identifiers of frame relay circuits in a network" filed 02/09/2001. The proposed

amendments to the claims have been entered and made of record.   Claims 1, 4, 14-16 have been

amended and new claims 20-38 have been added. Claims 1-38 are pending in the application.

2.   Applicant's amendment and argument to the amended claims are insufficient to

distinguish the claimed invention from the cited prior arts or overcome the rejection of said

claims under 35 U.S.C. 103 as discussed below. Applicant's amendment and argument with

respect to the pending claims have been fully considered, but are moot in view of the new

grounds of rejection, and will be examined as follows.

3.   Applicant's argument with respect to the rejected claims (pages 7-8) that the cited reference

does not disclose "the statistical data representing more than one type of statistic" or "different

types of statistics", or "multiple type of statistical data".   However, the features upon which

applicant relies are not recited in the rejected claims. Although the claims are interpreted in light

of the specification, limitations from the specification are not read into the claims. See In re Van

Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (fed. Cir. 1993). It's noted that, in operation, a system

administrator may edit a configuration file to specify the type of history data to be collected for

particular machines and/or applications, so that different types of statistics are collected from

different components of server cluster. Among the myriad types of information that may be

collected are statistics describing the overall workload of a machine, the number of network

requests received during a predetermined time interval by a particular machine or application, the

number of users connected to a particular machine or application, the system resources (such as

memory allocations) utilized to service needs for local processing such as backup routines. Also,

the types of statistics to be collected can include: Bandwidth of connection; Length of

connection; Total number of cells transmitted; Bit error rate; Source and destination addresses;

Start time of connection; and Number of cells rejected because they were in excess of requested

bandwidth. These statistics are collected by a computer program executed tool known as a

capacity manager. Therefore, examiner maintains that the references cited and applied in the last

office actions for the rejection of the claims are maintained in this office action.

Drawings

4.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every

feature of the invention specified in the claims. Any structural detail that is essential for a proper

understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

Fig. 3 is best described for claimed invention. Therefore, newly added limitation "collection of

statistical data associated with each device over a shorter time interval indicates a connection"

(claim 20), "collection occurs repeatedly over increasingly shorter time intervals" (claims 21,

34), "confirming collection is inconsistent with potentially connected devices" (claims 22, 35),

"accounts for skew in time of collecting" (claim 26), "statistical data is within a threshold" and

"increasing the threshold" (claims 28, 29, 37, 38) must be shown or the feature(s) canceled from

the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement

Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

and informed of any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

Claim objections

5.   Claim 27 is objected to because of the following informalities: on line 5 "a video service

data system receiving audio data" should read --a video service data system receiving video data-

- for the purpose of art rejection. Appropriate correction is required.

Claim Rejections - 35 .S.C. 112, first paragraph

6.   Claim1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

written description requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that

the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added "collection of statistical data associated with each device over a shorter time

interval indicates a connection" (claim 20), "collection occurs repeatedly over increasingly

shorter time intervals" (claims 21, 34), "confirming collection is inconsistent with potentially

connected devices" (claims 22, 35), "accounts for skew in time of collecting" (claim 26),

"statistical data is within a threshold" and "increasing the threshold" (claims 28, 29, 37, 38) has

no support in the disclosure.

Claim Rejections - 35 USC ' 101

7.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of

matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions

and requirements of this title.

8.   Claims 20-38 are rejected under 35 U.S.C. 101 because the claimed invention is not

supported by either a specific asserted utility or a well established utility. Claims 20-38 merely

defines "*a computer-readable medium*" or *data record*, and is not directed to statutory subject

matter. It's not tangibly embodies and non-functional descriptive material - data per se.

While the claim recite a computer readable medium or data record for generating

controlling connections between devices of a network, the data record structure being claimed

does not satisfy the definition of "data format structure" known to those skilled in the art. As an

example, the Computer Dictionary third edition (Microsoft Press) describes a "data format

structure" as "an organizational scheme, such as a record or array, that can be applied to data to

facilitates interpreting the data or performing operation on it". However, in claims 20-38, the

claims do not manipulate data representing physical objects or activities to achieve a practical

application (i.e., pre-computing process activity). Pre-computing process activity requires the

measurements of physical objects or activities to be transformed outside of the communications

protocol into the communications data structure, where the data comprises signals corresponding

to physical objects or activities external to the communication system, and where the process

causes a physical transformation of the signals which are intangible representations of the

physical objects or activities. Therefore, what applicant is attempting to claim as a readable

medium or data record as is known in the art. The claim is actually drawn to non-functional

descriptive material stored on a computer readable medium. The description given in the

specification does not cure this problem. In practical terms, claims define non-statutory

processes if they simply manipulate abstract ideas, e.g., a bid or a bubble hierarchy, without

some claimed practical application, Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59;

Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759.

Claims 20-38 is also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the

claimed invention is not supported by either a specific asserted utility or a well established utility

for the reasons set forth above, one skilled in the art clearly would not know how to use the

claimed invention.

Claim Rejections - 35 USC ' 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the
> prior art are such that the subject matter as a whole would have been obvious at the time the invention
> was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability
> shall not be negatived by the manner in which the invention was made.

10.   Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosa et

al. (US#6,115,362) in view of Albert et al. (US# 6,606,316).

Regarding claim 14, the references disclose method and system for mapping of frame

relay circuits in computer network, according to the essential features of the claim. Bosa

discloses receiving segment addresses of selected network segments in the network, wherein

each segment includes at least a portion spanning a public switched network and wherein each

selected network segment is defined by pairs of segment addresses, obtaining statistical data

associated with each identified segment address in the network, analyzing the obtained

statistical data to identify similar statistical data and identifying the pairs of segment addresses

corresponding to the selected network segments, based on the identified similar statistical data

(col. 8., line 1 - col. 9, line 38). However, Bosa does not disclose expressly the statistical data

representing different types of statistics. In the same field of endeavor, Albert et al.

(US#6,606,316) disclose a method of gathering statistics about packets includes determining at

a service manager statistics that are to be gathered for a flow and sending instructions to a

forwarding agent from the service manager detailing how to gather statistics for the flow. The

forwarding agent is implemented on a network device and the forwarding agent is operative to

receive statistics gathering instructions for a flow from the service manager (*Forwarding*

agents record different types of statistics). A report is received at the service manager of

statistics gathered at the forwarding agent according to the instructions sent by the service

manager. A service manager includes a processor configured to determine statistics that are to

be gathered for a flow. A forwarding agent sending interface is configured to send instructions

to a forwarding agent from the service manager detailing how to gather statistics for the flow.

The forwarding agent is implemented on a network device and the forwarding agent is

operative to receive statistics gathering instructions for a flow from the service manager. A

forwarding agent receiving interface is configured to receive a report at the service manager of

statistics gathered at the forwarding agent according to the instructions sent by the service

manager (Col. 4, lines 12 plus and Col. 27, lines 57 plus).

Regarding claim 15, Bosa discloses correlation factors (col. 9, lines 11-38), which meet

the limitation of refined statistical data associated with the identified potential pairs. These

correlation factors confirm the pairs of segment addresses.

11.	Claims 1-13 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bosa et al. (US 6, 1 1 5,362) in view of Albert et al. (US# 6,606,316), and further in view of

Seid et al. (US 5,768,271).

Regarding claims 1 and 16, Bosa and Albert disclose the claimed limitations as

discussed in the paragraph 10 above. Bosa further discloses creating a list of unmatched data

link connection identifiers, polling network devices associated with the data link connection

identifier, obtaining statistical data associated with each identified segment address in the

network, analyzing the obtained statistical data to identify similar statistical data and

identifying the pairs of segment addresses corresponding to the selected network segments (col.

8., line 1 - col. 9, line 38). However, Bosa and Albert fail to expressly disclose that the network

is a virtual private network. Seid discloses that Virtual Private Networks (VPNs) are a

collection of logical nodes and virtual paths (VPs) and include one or more virtual circuits

(VCs) (see Abstract). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to use a VPN for the network in the invention of Bosa. One of

ordinary skill in the art would have been motivated to do this in order to provide added security

to the network connections.

Regarding claims 2, Bosa discloses correlation factors, which meet the limitation of

refined statistical data associated with the identified potential pairs (col. 9, lines 1 1-38). These

correlation factors confirm the pairs of segment addresses.

Regarding claim 3, Bosa discloses traffic tables (45A-45N) and correlation matrices

(46A-46N), which meet the limitation of storing the pairs of segment addresses in a database

(see Figure 4).

Regarding claim 4, Bosa discloses a traëc profile of each of the segment address (see

Figure 8), which meets the limitation of statistical fingerprints for each segment address.

Regarding claims 5 and 18, Bosa discloses that the statistical fingerprints of a pair of

segment addresses are inverses of each other (col. 8, lines 1-15).

Regarding claims 6-8 and 19, Bosa discloses aggregating a predetermined set of core

statistics, which includes the number of bytes sent and received (col. 6, lines 50-64).

Regarding claim .9, Bosa discloses polling network devices for obtaining statistical data

(col. 6, lines 50-59).

Regarding claim 10, Bosa discloses that each network device may be a router (col. 6,

line! 10-25).

Regarding claims 1 1 and 12, Bosa discloses that the segment addresses comprise a data

link circuit identifier (DLCI) (see Figures 8-10).

Regarding claim 13, Bosa discloses that the method of claim 1 may be implemented in a

computer-readable medium having computer-executable instmctions (col. 9, lines 48-67).

Regarding claim 1 7, Bosa discloses polling at predetermined intervals (col. 8, line 52-

col. 9, line 2).

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

The Koperda (US#5,790,806) is cited to show the cable data network architecture

The Triulziet al. (US#2004/0117478) is cited to show the monitoring network activity.

The Mozes (US#6,732,085) is cited to show the method and system for sample size determination for database optimizers.

The Bland et al. (US#5,7322,218) is cited to show the management data gathering system for gathering on clients and servers data regarding interactions between the servers, the clients, and users of the clients during real use of a network of clients and servers.

The Spell et al. (US#6,208,640) is cited to show the predictive bandwidth allocation method and apparatus.

The Schow (US#6,751,226) is cited to show the system and method for providing managed frame relay service.

The Ordanic et al. (US#5,751,964) is cited to show the system and method for automatic determination of thresholds in network management.

The Lewis et al. (US#5,872,928) is cited to show the method and apparatus for defining and enforcing policies for configuration management in communications networks.

The Boyd et al. (US#6,360,261) is cited to show the system and method for analyzing remote traffic data in distributed computing environment.

13.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION THIS ACTION IS MADE FINAL**. See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action.

14.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can

normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

(571) 273-3149 (for informal or draft communications, please label "PROPOSED" or "DRAFT")
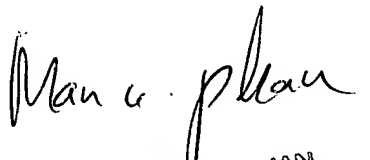
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free

1-866-217-9197.

Mphan

Feb. 10, 2005

MAN U. PHAN
PRIMARY EXAMINER